AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1 – 184 (Canceled).

Claims 185 – 248 (Cancelled)

249. (previously presented). A method of automated sample processing comprising the steps of:

establishing an automated sample processing system having an automated process operation capability that causes automated process operation events through robotic sample process functions;

scheduling a plurality of sample process operations;

systematically storing important details of a significant number of said plurality of sample process operations as such sample process operations occur;

automatically processing at least one biological sample arranged on a slide at least in part through operation of said robotic sample process functions sequencing through said scheduled plurality of sample process operations;

monitoring operationally-influential exteriorly-consequential information, wherein said step of monitoring operationally-influential exteriorly-consequential information comprises the step of monitoring replenishable supply information;

automatically notifying at least one person of a potential need for a replenishable supply in response to said step of monitoring operationally-influential exteriorly-consequential information; and

replenishing said replenishable supply in real-time concurrently with sample processing.

250 (previously presented). A method of automated sample processing as described in claim 249, further comprising the step of:

automatically advance notifying at least one person of information at least in part in response to said step of monitoring replenishable supply information.

251 (previously presented). A method as described in claim 250, wherein the replenishable supply comprises a buffer, a reagent, a stain, a target retrieval solution, an epitope retrieval solution, a deparaffinization fluid, or a combination thereof.

252 (previously presented). A method of automated sample processing comprising the steps of:

establishing an automated sample processing system having an automated process operation capability that causes automated process operation events through robotic sample process functions;

scheduling a plurality of sample process operations;

systematically storing important details of a significant number of said plurality of sample process operations as such sample process operations occur;

automatically processing at least one biological sample arranged on a slide at least in part through operation of said robotic sample process functions sequencing through said scheduled plurality of sample process operations;

monitoring operationally-influential exteriorly-consequential information, wherein said operationally-influential exteriorly-consequential information comprises historical usage information; and

automatically informing at least one person of at least some exteriorly-consequential information in response to said step of monitoring operationally-influential exteriorly-consequential information;

wherein said step of automatically informing at least one person of at least some exteriorly-consequential information comprises the step of automatically advance notifying at least one person of information at least in part in response to said step of monitoring historical usage information.

253 (previously presented). A method of automated sample processing as described in claim 252 wherein said step of monitoring historical usage information comprises the step of monitoring user statistical information.

254 (previously presented). A method of automated sample processing as described in claim 253 and further comprising the step of automatically advance notifying at least one person of a predictive need in response to said step of monitoring historical usage information.

255 (previously presented). A method of automated sample processing as described in claim 250 wherein said step of monitoring operationally-influential exteriorly-consequential information comprises the step of monitoring predictive usage information.

256 (previously presented). A method of automated sample processing as described in claim 255 wherein said step of monitoring predictive usage information comprises the step of utilizing order lead time information; utilizing reagent order lead time information; or utilizing maintenance lead time information.

257 (previously presented). A method of automated sample processing as described in claim 250 wherein said step of automatically informing at least one person of at least some exteriorly-consequential information comprises the step of automatically informing at least one operator, an administrator, one supplier or one manufacture of at least some exteriorly-consequential information.

258 (previously presented). A method of automated sample processing comprising the steps of:

establishing an automated sample processing system having an automated process operation capability that causes automated process operation events through robotic sample process functions;

scheduling a plurality of sample process operations;

systematically storing important details of a significant number of said plurality of sample process operations as such sample process operations occur;

automatically processing at least one biological sample arranged on a slide at least in part through operation of said robotic sample process functions sequencing through said scheduled plurality of sample process operations;

establishing a biological sample slide processing network dedicated to a stainer or a sample processing resource for integrity and security purposes; and

accepting a prompt from a user to establish a remote access connection between said biological sample slide processing network and a remote location, and to display at least a portion of said important details of a significant number of said plurality of sample process operations at said remote location.

259 (previously presented). A method as described in claim 258, further comprises the step of providing a remote access connection from a remote location to said biological sample slide processing network and said dedicated biological sample slide processing network is connected to a laboratory network or a laboratory information system.

260 (previously presented). A method as described in claim 258 wherein said remote access connection is established from the dedicated sample processing network to a remote location that is a manufacturer, supplier, or maintenance personnel location.

261 (previously presented). A method of automated sample processing comprising the steps of:

establishing an automated sample processing system having an automated process operation capability that causes automated process operation events through robotic sample process functions;

scheduling a plurality of sample process operations;

systematically storing important details of a significant number of said plurality of sample process operations as such sample process operations occur;

automatically processing at least one biological sample arranged on a slide at least in part through operation of said robotic sample process functions sequencing through said scheduled plurality of sample process operations;

accepting a prompt from a user to display at least a portion of said important details of a significant number of said plurality of sample process operations; and

providing information relative to said plurality of sample process operations to at least one person,

wherein said step of systematically storing important details of a significant number of said plurality of sample process operations as sample process operations occur comprises the steps of:

systematically storing time of occurrence data,

systematically storing substance identifier data,

systematically storing individual robotic movement data,

systematically storing subject sample data, and

systematically storing type of protocol data.

262 (previously presented). A method of automated sample processing comprising the steps of:

establishing an automated sample processing system having an automated process operation capability that causes automated process operation events through robotic sample process functions;

scheduling a plurality of sample process operations;

systematically storing important details of a significant number of said plurality of sample process operations as such sample process operations occur;

automatically processing at least one biological sample arranged on a slide at least in part through operation of said robotic sample process functions sequencing through said scheduled plurality of sample process operations;

accepting a prompt from a user to display at least a portion of said important details of a significant number of said plurality of sample process operations; and

providing information relative to said plurality of sample process operations to at least one person, wherein said step of systematically storing important details of a significant number of said plurality of sample process operations as such sample process operations occur comprises the step of storing said important details as unmanipulatable data.

263 (previously presented). A method of automated sample processing comprising the steps of:

establishing an automated sample processing system having an automated process operation capability that causes automated process operation events through robotic sample process functions;

scheduling a plurality of sample process operations;

systematically storing important details of a significant number of said plurality of sample process operations as such sample process operations occur;

automatically processing at least one biological sample arranged on a slide at least in part through operation of said robotic sample process functions sequencing through said scheduled plurality of sample process operations;

accepting a prompt from a user to display at least a portion of said important details of a significant number of said plurality of sample process operations; and

providing information relative to said plurality of sample process operations to at least one person.

264 (previously presented). A method of automated sample processing as described in claim 263 wherein said step of providing information relative to said plurality of sample process operations to at least one person comprises the step of providing a sequential playback capability.

265 (previously presented). A method of automated sample processing as described in claim 264 wherein said step of providing a sequential playback capability comprises the step of providing an altered speed sequential playback capability.

266 (previously presented). A method of automated sample processing as described in claim 265 wherein said step of providing an altered speed sequential playback capability comprises the step of providing a user alterable speed sequential playback capability.

267 (previously presented). A method of automated sample processing as described in claim 266 wherein said step of providing an altered speed sequential playback capability comprises the step of providing a high speed sequential playback capability.

268 (previously presented). A method of automated sample processing as described in claim 263 wherein said step of systematically storing important details of a significant number of said plurality of sample process operations as such sample process operations occur comprises the step of systematically storing details selected from a group consisting of:
time of occurrence data, number of occurrence data, part operation data, amount of usage data, amount of material used data, type of material used data, substance identifier data, individual movement data, robotic action data, individual robotic movement data, individual operation data, individual usage data, actual date data, actual time data, precise time data, relative time data, absolute time data, initiation time data, completion time data, subject sample data, sample image data, individual sample process data, individual slide log data, system image data, substance image data, and type of protocol data.

269 (previously presented). A method of automated sample processing as described in claim 263 wherein said step of systematically storing important details of a significant number of said

plurality of sample process operations as such sample process operations occur comprises the step of creating a segmented computer file, an inalterable computer record, an integral change indicia, a common format computer record, a proprietary format computer record, or a combination thereof.

270 (previously presented). A method of automated sample processing as described in claim 263 wherein said step of providing information relative to said plurality of sample process operations to at least one person comprises the step of displaying at least a portion of said information.

271 (previously presented). A method of automated sample processing as described in claim 270 wherein said step of displaying at least a portion of said information comprises the step of remotely displaying at least a portion of said information, the step of real time displaying at least a portion of said information, or the step of creating a simulated motion display from at least a portion of said information.

272 (previously presented). A method of automated sample processing as described in claim 271 and further comprising the step of real time displaying individual slide log data.

273 (previously presented). A method of automated sample processing as described in claim 272 wherein said step of establishing an automated sample processing system having an automated process operation capability that causes automated process operation events through robotic sample process functions comprises the steps of:

establishing a plurality of automated slide stainers; and

electronically connecting said plurality of automated slide stainers.

274 (previously presented). An automated sample processing system comprising:

a process operation control system configured to at least partially process at least one biological sample arranged on a slide;

a robotic motion system responsive to said process operation control system;

a multiple event scheduler to which said robotic motion system is at least in part responsive;

a systematic process detail capture element;

a significant process detail memory responsive to said systematic process detail capture element and configured to store at least some significant process data;

an operationally-influential exteriorly-consequential information monitor comprising a replenishable supply information monitor configured to monitor replenishable supply information;

an automatic operator replenishable supply notice element that acts in response to said replenishable supply information monitor; and wherein said process operation control system is configured to allow replenishing of said replenishable supply in real-time concurrently with sample processing.

275 (currently amended). An automated sample processing system according to claim 274, further comprising an automatic exteriorly-consequential information advance notice element configured to automatically advance notify~~ing~~ at least one person of information at least in part in response to said replenishable supply information monitor.

276 (previously presented). An automated sample processing system as described in claim 275, wherein the replenishable supply comprises a buffer, a reagent, a stain, a target retrieval solution, an epitope retrieval solution, a deparaffinization fluid, or a combination thereof.

277 (previously presented). An automated sample processing system comprising:

a process operation control system configured to at least partially process at least one biological sample arranged on a slide;

a robotic motion system responsive to said process operation control system;

a multiple event scheduler to which said robotic motion system is at least in part responsive;

a systematic process detail capture element;

a significant process detail memory responsive to said systematic process detail capture element and configured to store at least some significant process data;

an operationally-influential exteriorly-consequential information monitor;

an automatic exteriorly-consequential information notice element responsive to said operationally-influential exteriorly-consequential information monitor; and

a historical usage information monitor,

wherein said automatic exteriorly-consequential information notice element comprising an automatic exteriorly-consequential information advance notice element configured to automatically advance notify at least one person of information at least in part in response to said historical usage information monitor.

278 (previously presented). An automated sample processing system as described in claim 277 wherein said historical usage information monitor comprises a user statistical information monitor.

279 (previously presented). An automated sample processing system as described in claim 278 and further comprising an automatic predictive need notice element that acts in response to said historical usage information monitor.

280 (previously presented). An automated sample processing system as described in claim 275 wherein said operationally-influential exteriorly-consequential information monitor comprises a predictive usage information element.

281 (previously presented). An automated sample processing system as described in claim 280 wherein said predictive usage information element comprises an order lead time information data element, a reagent order lead time information data element, or a maintenance lead time information data element.

282 (previously presented). An automated sample processing system as described in claim 275 wherein said automatic exteriorly-consequential information notice element comprises an automatic operator exteriorly-consequential information notice element, an automatic administrator exteriorly-consequential information notice element, an automatic supplier exteriorly-consequential information notice element, or an automatic manufacturer exteriorly-consequential information notice element.

283 (previously presented). An automated sample processing system comprising:

a process operation control system configured to at least partially process at least one biological sample arranged on a slide and configured to establish a biological sample slide processing network dedicated to a stainer or a sample processing resource for integrity and security purposes;

a robotic motion system responsive to said process operation control system;

a multiple event scheduler to which said robotic motion system is at least in part responsive;

a systematic process detail capture element;

a significant process detail memory that is responsive to said systematic process detail capture element and that stores at least some significant process data;

an information access prompt element to establish a remote access connection between said sample processing network and a remote location, whereby at least a portion of said significant process data may be displayed at said remote location.

284 (previously presented). An automated sample processing system as described in claim 283, wherein said remote access connection is established from a remote location to said dedicated biological sample slide processing network and said dedicated biological sample slide processing network is connected to a laboratory network or a laboratory information system.

285 (previously presented). An automated sample processing system as described in claim 283, wherein said remote access connection is established from the dedicated sample processing network to a remote location that is a manufacturer, supplier, or maintenance personnel location.

286 (previously presented). An automated sample processing system comprising:

a process operation control system configured to at least partially process at least one biological sample arranged on a slide;

a robotic motion system responsive to said process operation control system;

a multiple event scheduler to which said robotic motion system is at least in part responsive;

a systematic process detail capture element;

a significant process detail memory that is responsive to said systematic process detail capture element and that stores at least some significant process data;

an information access prompt element to which said significant process data is responsive; and

a significant process data transfer element,

wherein said systematic process detail capture element comprises:

a time of occurrence data capture element,

an individual robotic movement data capture element,

a substance identifier data capture element,

a subject sample data capture element, and

a type of protocol data capture element.

287 (previously presented). An automated sample processing system comprising:

a process operation control system configured to at least partially process at least one biological sample arranged on a slide;

a robotic motion system responsive to said process operation control system;

a multiple event scheduler to which said robotic motion system is at least in part responsive;

a systematic process detail capture element;

a significant process detail memory that is responsive to said systematic process detail capture element and that stores at least some significant process data;

an information access prompt element to which said significant process data is responsive; and

a significant process data transfer element,

wherein said significant process detail memory is configured to comprise unmanipulatable data.

288 (previously presented). An automated sample processing system comprising:

a process operation control system configured to at least partially process at least one biological sample arranged on a slide;

a robotic motion system responsive to said process operation control system;

a multiple event scheduler to which said robotic motion system is at least in part responsive;

a systematic process detail capture element;

a significant process detail memory that is responsive to said systematic process detail capture element and that stores at least some significant process data;

an information access prompt element to which said significant process data is responsive; and

a significant process data transfer element.

289 (previously presented). An automated sample processing system as described in claim 288, further comprising a sequential playback element.

290 (previously presented). An automated sample processing system as described in claim 289 wherein said sequential playback element comprises an altered speed sequential playback element.

291 (previously presented). An automated sample processing system as described in claim 290 wherein said altered speed sequential playback element comprises a user alterable speed sequential playback element.

292 (previously presented). An automated sample processing system as described in claim 290 wherein said altered speed sequential playback element comprises a high speed sequential playback element.

293 (previously presented). An automated sample processing system as described in claim 288 wherein said systematic process detail capture element comprises a systematic process detail capture element selected from a group consisting of:

a time of occurrence data capture element, a number of occurrence data capture element, a part operation data capture element, an amount of usage data capture element, an amount of material used data capture element, a type of material used data capture element, a substance identifier data capture element, an individual movement data capture element, a robotic

action data capture element, an individual robotic movement data capture element, an individual operation data capture element, an individual usage data capture element, an actual date data capture element, an actual time data capture element, a precise time data capture element, a relative time data capture element, an absolute time data capture element, an initiation time data capture element, a completion time data capture element, a subject sample data capture element, a sample image data capture element, an individual sample process data capture element, individual slide log data capture element, a system image data capture element, a substance image data capture element, and a type of protocol data capture element.

294 (previously presented). An automated sample processing system as described in claim 288 wherein said significant process detail memory comprises a segmented computer file memory element, an inalterable computer record memory element, an integral change indicia memory element, a common format computer record memory element, a proprietary format computer record memory element, or a combination thereof.

295 (previously presented). An automated sample processing system as described in claim 288 and further comprising a significant process detail information display that is responsive to said significant process detail memory.

296 (previously presented). An automated sample processing system as described in claim 295 wherein said significant process detail information display comprises a remote process detail information display, a real time process detail information display, or a simulated motion process detail information display.

297 (previously presented). An automated sample processing system as described in claim 296 and further comprising a real time individual slide log data display.

298 (previously presented). An automated sample processing system as described in claim 297 and further comprising:

a plurality of automated slide stainers; and

an electronic connection to said plurality of automated slide stainers.